UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

# NOTICE OF ALLOWANCE AND FEE(S) DUE

23373 7590

12/30/2008

SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037 EXAMINER
SETH, MANAV
ART UNIT PAPER NUMBER

2624 DATE MAILED: 12/30/2008

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/717.647      | 11/21/2003  | Song-Yean Cho        | O78056              | 9133             |

TITLE OF INVENTION: METHOD AND APPARATUS FOR ENCRYPTING AND COMPRESSING MULTIMEDIA DATA

| APPLN. TYPE    | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE   |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | NO           | \$1510        | \$300               | \$0                  | \$1810           | 03/30/2009 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

### Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or <u>Fax</u> (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where m

| appropriate. All further indicated unless correct maintenance fee notifica  | ed below or directed otl  | ng the Patent, advance of<br>herwise in Block 1, by (  | orders and notification of<br>(a) specifying a new corr  | maintenance fees<br>espondence address   | will be<br>; and/o   | mailed to the current<br>r (b) indicating a sepa   | correspondence address as<br>rate "FEE ADDRESS" for   |
|---|---|--|--|--|--|--|---|
| CURRENT CORRESPOND  | Fe<br>pa  | Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, mus have its own certificate of mailing or transmission. |  |  |  |  |   |
| 23373 SUGHRUE M 2100 PENNSYI SUITE 800  | 7590 12/30<br>ION, PLLC<br>LVANIA AVENUE  | I I<br>St<br>ad  | Ce<br>nereby certify that the<br>lates Postal Service<br>dressed to the Ma   | rtificate<br>nis Fee(<br>with suf<br>il Stop   | e of Mailing or Transı<br>s) Transmittal is being<br>ficient postage for firs<br>ISSUE FEE address | deposited with the United<br>t class mail in an envelope<br>above, or being facsimile  |   |
| WASHINGTON  | N, DC 20037   |  | transmitted to the USPTO (\$71) 273-2885, on the date ind  |  |  |  | (Depositor's name)  |
|   |   |  |  |  |  |  | (Signature)   |
|   |   |  |  |  |  |  | (Date)  |
| APPLICATION NO.   | FILING DATE   |  | FIRST NAMED INVENTO  | R  | ATTO   | RNEY DOCKET NO.  | CONFIRMATION NO.  |
| 10/717,647<br>TITLE OF INVENTION  | 11/21/2003<br>I: METHOD AND APPA  | ARATUS FOR ENCRYP  | Song-Yean Cho<br>TING AND COMPRESS   | ING MULTIMEDI  | A DAT.   | Q78056<br>A  | 9133  |
| APPLN. TYPE   | SMALL ENTITY  | ISSUE FEE DUE  | PUBLICATION FEE DUI  | E PREV. PAID ISSU  | IE EEE   | TOTAL FEE(S) DUE   | DATE DUE  |
| nonprovisional  | NO NO   | \$1510   | \$300  | \$0  |  | \$1810   | 03/30/2009  |
| EXAM  |   | ART UNIT   | CLASS-SUBCLASS   | 7  |  | Ģ1010  | 03/30/2007  |
| SETH, N   | MANAV   | 2624   | 382-232000   | _  |  |  |   |
| "Fee Address" ind<br>PTO/SB/47; Rev 03-(<br>Number is required.  3. ASSIGNEE NAME A<br>PLEASE NOTE: Un  | ND RESIDENCE DATA<br>less an assignee is ident<br>h in 37 CFR 3.11. Com                               | " Indication form<br>ned. Use of a Customer<br>A TO BE PRINTED ON<br>tified below, no assignee   | (1) the names of up or agents OR, alterna (2) the name of a sin registered attorney or 2 registered patent at listed, no name will be THE PATENT (print or totata will appear on the or a substitute for filing a (B) RESIDENCE: (CIT  | gle firm (having as agent) and the nan torneys or agents. If the printed.  Type)  patent. If an assign assignment. | a membres of unit no nam   | p to per a 2   | ocument has been filed for  |
| Please check the appropri   | riate assignee category or  | r categories (will not be p  | rinted on the patent):   | Individual 🗖 C   | orporati   | ion or other private gro   | up entity Government  |
| 4a. The following fee(s) are submitted:  ☐ Issue Fee ☐ Publication Fee (No small entity discount permitted) ☐ Advance Order - # of Copies                           |   |  | 4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)  ☐ A check is enclosed. ☐ Payment by credit card. Form PTO-2038 is attached. ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form). |  |  |  |   |
| 5. Change in Entity Sta  a. Applicant claim   | tus (from status indicate<br>as SMALL ENTITY state  | *  | ☐ b. Applicant is no lo  | onger claiming SMA   | LL EN  | ΓΙΤΥ status. See 37 CF   | FR 1.27(g)(2).  |
| NOTE: The Issue Fee an interest as shown by the   | d Publication Fee (if req<br>records of the United Sta  | uired) will not be accepte<br>ites Patent and Trademarl  | ed from anyone other than<br>k Office.   | the applicant; a reg   | istered  | attorney or agent; or th   | e assignee or other party in  |
| Authorized Signature  |   |  |  | Date   |  |  |   |
| Typed or printed name   |   |  | Registration No.   |  |  |  |   |
| This collection of inform<br>an application. Confiden<br>submitting the complete<br>this form and/or suggest<br>Box 1450, Alexandria, V<br>Alexandria, Virginia 223 | tiality is governed by 35 d application form to the ions for reducing this bu /irginia 22313-1450. DC | FR 1.311. The informati<br>5 U.S.C. 122 and 37 CFR<br>6 USPTO. Time will var<br>rden, should be sent to the<br>D NOT SEND FEES OR  | on is required to obtain on 1.14. This collection is of y depending upon the induction of the COMPLETED FORMS  | r retain a benefit by<br>stimated to take 12<br>ividual case. Any c<br>cer, U.S. Patent and<br>TO THIS ADDRES      | the pub<br>minutes<br>omment<br>Traden<br>S. SEN   | lic which is to file (and<br>s to complete, including<br>ts on the amount of tin<br>mark Office, U.S. Depa<br>D TO: Commissioner f | by the USPTO to process) g gathering, preparing, and ne you require to complete rtment of Commerce, P.O. or Patents, P.O. Box 1450, |

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

OMB 0651-0033

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450

P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO.                | FILING DATE    | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.            | CONFIRMATION NO. |  |
|--------------------------------|----------------|----------------------|--------------------------------|------------------|--|
| 10/717,647                     | 11/21/2003     | Song-Yean Cho        | Q78056 9133                    |                  |  |
| 23373 7.                       | 590 12/30/2008 |                      | EXAMINER                       |                  |  |
| SUGHRUE MIC                    | N, PLLC        | SETH, N              | MANAV                          |                  |  |
| 2100 PENNSYLVANIA AVENUE, N.W. |                |                      | ART UNIT                       | PAPER NUMBER     |  |
| SUITE 800<br>WASHINGTON,       | DC 20037       |                      | 2624<br>DATE MAILED: 12/30/200 | 8                |  |

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 1042 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 1042 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

|   | Application No.  | Applicant(s)   |           |
|---|--|--|-----------|
| AL (* CAU L'')  | 10/717,647   | CHO ET AL.   |           |
| Notice of Allowability  | Examiner   | Art Unit   |           |
|   | MANAV SETH   | 2624   |           |
| The MAILING DATE of this communication apperature.  All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT R of the Office or upon petition by the applicant. See 37 CFR 1.313             | (OR REMAINS) CLOSED or other appropriate comr <b>IGHTS</b> . This application is | in this application. If not included nunication will be mailed in due cour | rse. THIS |
| 1. This communication is responsive to 7/31/2008.   |  |  |           |
| 2. ☑ The allowed claim(s) is/are <u>1-7</u> .   |  |  |           |
| <ul> <li>3.  Acknowledgment is made of a claim for foreign priority unally All b)  Some* c)  None of the:</li> <li>1.  Certified copies of the priority documents have</li> <li>2.  Certified copies of the priority documents have</li> <li>3.  Copies of the certified copies of the priority do</li> </ul> | e been received.<br>e been received in Applica                                   | ion No   | from the  |
| International Bureau (PCT Rule 17.2(a)).  | cuments have been receiv   | ed in this hational stage application                                      | nom the   |
| * Certified copies not received:  |  |  |           |
| Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONN THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.  4.  A SUBSTITUTE OATH OR DECLARATION must be subminformal patent application (PTO-152) which give  | MENT of this application.  itted. Note the attached Example 2.                   | (AMINER'S AMENDMENT or NOTI  |           |
| 5. CORRECTED DRAWINGS ( as "replacement sheets") mus  | st be submitted  |  |           |
| (a) ☐ including changes required by the Notice of Draftspers  |  | ew ( PTO-948) attached   |           |
| 1) ☐ hereto or 2) ☐ to Paper No./Mail Date  | -  | (1.10.0.0) attached  |           |
| (b) ☐ including changes required by the attached Examiner'<br>Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1  | s Amendment / Comment .84(c)) should be written on                               | the drawings in the front (not the bac                                     | k) of     |
| each sheet. Replacement sheet(s) should be labeled as such in the first of the sheet. DEPOSIT OF and/or INFORMATION about the deposit attached Examiner's comment regarding REQUIREMENT   | sit of BIOLOGICAL MA   | ΓERIAL must be submitted. Note   | the       |
|   |  |  |           |
| Attachment(s) 1. ☑ Notice of References Cited (PTO-892)   | 5 D Notice of  | nformal Patent Application   |           |
| <ol> <li>Notice of References Cited (PTO-092)</li> <li>Dotice of Draftperson's Patent Drawing Review (PTO-948)</li> </ol>   |  | Summary (PTO-413),   |           |
| 3. ☐ Information Disclosure Statements (PTO/SB/08),   | Paper No   | s./Mail Date<br>s Amendment/Comment  |           |
| Paper No./Mail Date  4.  Examiner's Comment Regarding Requirement for Deposit of Biological Material  | 8. ⊠ Examiner<br>9.  | s Statement of Reasons for Allowan   | ice       |
|   |  | <del></del>  |           |
|   |  |  |           |

#### **DETAILED ACTION**

### Response to Amendment

1. Applicant's amendment, filed on July 31, 2008 has been considered and entered in full.

2. Applicant's arguments with respect to amended claims have been considered and are

persuasive; therefore all the rejections on the respective claims have been withdrawn.

### Allowable Subject Matter

#### Reasons of Allowance:

3. Claims 1-7 are allowed.

The following is an examiner's statement of reasons of allowance:

The instant invention and the closest prior art (Chen, U.S. Patent No. 5,479,527) are

directed to the compression of multimedia data. The instant invention further recites a step of

encrypting the compressed DC and AC components using an encryption key after the step of

entropy encoding of the AC and DC components and this step of encryption after entropy encoding

but before Huffman encoding is not taught by the prior art of record, as recited in claim 1. Chen

further does not teach "encrypting the entropy encoded AC and Dc coefficients using a certain

encryption key, wherein the certain encryption key is based on a Variable Length Code and Variable

Length Integer of the entropy encoded AC and DC coefficients" as recited in claim 6. Therefore

claims 1 and 6 are allowed. All other claims depending on claims 1 and 6 are allowable at least by

dependency on claims 1 and 6.

Any comments considered necessary by applicant must be submitted no later than the

payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee.

Application/Control Number: 10/717,647 Page 3

Art Unit: 2624

Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Manav Seth whose telephone number is (571) 272-7456. The examiner can

normally be reached on Monday to Friday from 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Matt Bella, can be reached on (571) 272-7778. The fax phone number for the organization where

this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR system,

see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system,

contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Manav Seth/ Art Unit 2624

December 22, 2008

/Matthew C Bella/ Supervisory Patent Examiner, Art Unit

2624